

POULTRY FACTS

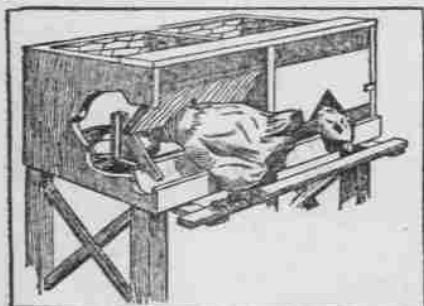


ILLUSTRATION OF TRAP NEST

Device Intended to Assist Poultry Breeder to Find Out Best Layers and Keep Pedigrees.

This is an illustration of a trap nest—not a guillotine. It is designed to help the poultry breeder to find out his good layers and to keep pedigrees. It is very simple. It may be attached to the under side of the dropping board, with the front facing the pen and arranged so that it can be easily removed. The dropping board will then be the roof of the nest.

The rear of the nest may be of wire for the sake of ventilation. If the nest is placed on the wall, slats or wire should be inserted from the front of the nest to the wall at a sharp angle to prevent the hen from roosting on the nest. When she enters the nest, which releases the catch and allows the door



Trap Nest in Operation.

to shut. The catch should be set so that its edge just holds the door, the position being regulated by a screw or nail at the lower inside edge of the catch. A washer on the screw will prevent it from sticking. The guard around the catch holds the nesting material away. The nest should be visited frequently to release the hens. —Popular Science Monthly.

DUCKS THRIVE ON SOFT FOOD

Nutritive Organs Not Adapted to Whole Grains—Give Them Green Feeds in Abundance.

The duck's nutritive organs are not adapted to whole grains. The natural diet of ducks is soft food, worms and bugs, from the banks and marshes. For best development, ducks should have soft feed, always accompanied by water in pans deep enough to permit them to submerge the beak to the eyes. Give them lettuce, spinach, beet tops, onion tops, weeds—green food of some kind in abundance.

For a few ducks the vegetable parings may be boiled and fed with mash; small potatoes, not to exceed a fifth of the mash, may be used. Too many potatoes are not good.

For stock ducks in autumn and early winter, an excellent ration is equal parts of cornmeal, wheat bran and boiled vegetables, with 10 per cent of beef scrap fed morning and evening; at noon a little cracked corn, wheat or oats. When the birds begin to lay, increase the proportion of meal and scrap, and add low-grade flour, making a mash about as follows: Meal, one part; bran, one part; low-grade flour, one part; vegetables, one part, with from 12 to 15 per cent of beef scrap.

GOOD REMEDY FOR GAPEWORM

Parasites Are Usually Found in Poultry Raised on Low Land—Plow Infected Areas.

Gapeworms are commonly found in poultry raised on low land; they may be seen attached to the walls of the windpipe. For treatment restrict the birds to well-drained quarters and plow the infected areas. Individual treatment necessitates the removal of the worms. By a feather moistened with turpentine swab out the windpipe.

RATION FOR GROWING CHICKS

Good Dry Mash Is Made of Mixture of Cornmeal, Wheat, Bran and High-Grade Beef Scraps.

A good dry mash for feeding growing chicks in hoppers is made of one part cornmeal, two parts wheat bran and half a part of high-grade beef scraps, though most any mixture of ground grains which does not include too much fattening material will prove satisfactory for this purpose if the chicks are on free range.

RANGE FOR BREEDING DUCKS

Fowls Should Not Be Confined During Balance of Season—Do Well Without Swimming.

The ducks which are intended for next year's breeders should be allowed to have free range during the rest of the season and if there is a place for them to swim, it will be better for them, though they do well without swimming.

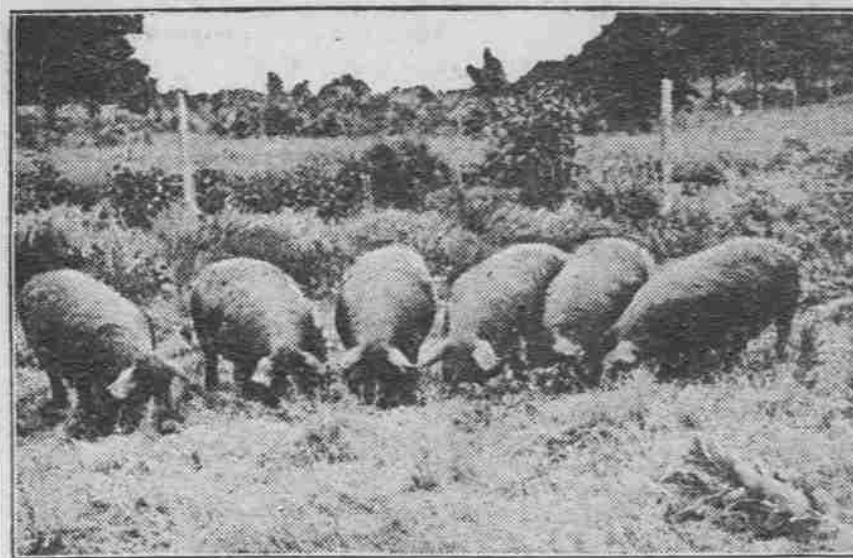
Keep Complete Records.

Keep a record of your flock the year round. It is the only way to find how much money they are earning. Charge yourself a reasonable price for all the eggs you use.

Build New Henhouse. Now is the time to build the new henhouse so that it will have time to dry out thoroughly before cold weather comes.

Grain Supply for Hens. A hen should be fed some grain that she doesn't have to scratch for.

BLUE GRASS BEST FOR FATTENING HOGS



ON BLUE-GRASS PASTURE AT MISSOURI COLLEGE.

(By F. B. MUMFORD, Dean of Missouri College of Agriculture, Columbia, Mo.)

Probably no state in the United States has so large an area of blue grass pasture as Missouri. Certain advantages in this state have led many men who farm, and particularly those controlling large bodies of land, to follow grazing on permanent pastures. When the price of land was low and the value of grain less than at present, blue-grass farming was more profitable than rotative farming. A change of conditions makes more skillful handling of grass lands necessary.

Investigations carried on at the Missouri experiment station for five years, comparing blue grass with ten other rotations, including the best forage

crops known for Missouri, show that the average return per acre which can be accredited to blue-grass forage for fattening hogs is \$22.50 per acre, estimating pork at 6 cents a pound, and corn fed at 60 cents a bushel. A rotation of rape, clover, and corn yielded an annual income of \$22.42 per acre. A succession of corn in which cowpeas were planted at the last cultivation gave an annual income per acre of \$19.48.

The figures indicate that it is not necessary for men who farm to plow up all the land devoted to blue-grass pastures in order to make it pay a good income even on the basis of high land values at the present prevailing in this state.

SHELTER ESSENTIAL FOR A SHEEP FLOCK

Dry Floor, Good Roof, Abundance of Fresh Air and Feed Space Are Important.

It is impossible to suggest any very definite sheep barn plans without knowing under just what conditions the barn is to be built, but Prof. H. Hackedorn of the Missouri College of Agriculture makes some general suggestions. He says: "In planning barns or sheds for a breeding flock of sheep, a space of 10 or 12 square feet per ewe will give sufficient room. The essentials of shelter for sheep are (1) dry floor, (2) good roof, (3) an abundance of fresh air, (4) avoid drafts (5) avoid narrow doors and passages so ewe heavy with lamb will not be injured, and (6) provide sufficient feeding-trough space so all the sheep can eat at the same time.

"We find that a shed 25 or 30 feet wide and as long as necessary to house the flock gives very good results at the Missouri agricultural experiment station. It should open on the south and may be built with a feed trough and feed alley along the north side. Economy of rack space may be secured by the use of movable racks so arranged as to make as many lots as are needed in the shed. These partition racks can be moved out of the way whenever a wagon is driven in to be loaded with manure. The shed should be high enough to afford plenty of loft room. As we feed baled hay, a loft five feet high at the eaves gives us room enough to store a winter's supply for the flock, but if loose hay is put in and fed correspondingly, more loft room must be provided."

BLACKLEG IS MOST INFECTIOUS DISEASE

Trouble Is Caused by Seed-Forming Organism Gaining Entrance Through Wounds.

(By A. HAINNER, Idaho Experiment Station.)

Blackleg is a specific infectious disease of young cattle, caused by a spore or seed-forming organism that gains entrance to the tissues through small wounds in the skin. Cattle between the ages of six months and two and one-half years are most susceptible.

The main noticeable symptom is the occurrence of a large gaseous swelling beneath the skin of the hind quarters, the shoulder or the lower portion of the neck. The swelling crackles when the hand is passed over it, and if cut into the muscle is dark and a yellowish bloody fluid escapes. Associated with this symptom are others common to bacterial infections, viz.: Elevation of body temperature, loss of appetite and rumination, dullness, and difficult breathing.

The best method of handling is to burn or bury deeply the carcasses of dead animals, disinfect the spots where they died, remove healthy stock from infected pastures and vaccinate the susceptible cattle.

CARING FOR DAIRY VESSELS

Wash With Hot Water Into Which Some Good Alkaline Powder Has Been Added—Avoid Soap.

Wash all dairy vessels in warm water first, then in water as hot as the hands will stand. Into this hot water put some good alkaline wash powder. Do not use soap, it may leave a taste.

PLOW GARDEN PATCH IN FALL

Land So Treated Will Stand Much Wet Weather Next Spring—Light Soil Likely to Drift.

Plow all poorly drained or heavy gardens and potato patches in the fall. Land so plowed will stand much more wet weather the next spring than spring plowed soil.

It is seldom a good plan to plow light soil in the fall especially in regions where the wind is likely to cause the land to drift.

CARE OF WIRE CUTS AND OTHER INJURIES

Practical and Timely Hints Given by an Expert of Missouri College of Agriculture.

(By L. S. BACKUS, Missouri College of Agriculture.)

First aid is most important. Quick healing leaves smaller scars. Don't use dust or lime to stop bleeding.

Bleeding that can be stopped with powders will soon stop itself anyhow. Frequent washing irritates wounds, prevents prompt healing and may cause proud flesh.

Small concealed stab wounds such as those from nails are the most likely to cause death. Find them and keep them clean and well disinfected. Swab out deep cuts with pure tincture of iodine as soon as it can be secured and they will take care of themselves then if the normal pus discharge is removed.

A long continued discharge from a wound indicates an abscess pocket, a bone injury, or the presence of a snag or something else that should not be in the wound. Call a veterinarian.

As soon as bleeding has been stopped, wash the wound with a pint of warm water to which two teaspoonfuls of creolin, lysol, carbolic acid, or some similar disinfectant has been added.

A wound should be healed in about three weeks. If it is doing well, the swelling will gradually go down, and the discharge will be odorless, thin, and bloody at first, and thicker and whiter later.

Antitoxin will prevent lockjaw after nail or other puncture wounds. If not so prevented, very few of the lockjaw cases ever recover. The hard crust lime forms over the surface of a wound favors lockjaw by shutting out the air.

Bleeding from a leg can always be stopped by tying a small rope loosely about the wound, then twisting it with a stick or small rod. Tighten till bleeding stops. Apply bandages and remove the cord if possible. If bandages cannot be applied, prevent serious bleeding by pressing the fingers against the cut blood vessels until a veterinarian can be called.

STUDY THE MARKET DEMANDS CAREFULLY

Farmer Must Strive to Produce Only Best Animals and Meet Needs of Consumer.

(By E. T. SIMPSON, Missouri College of Agriculture.)

We must study the market demands and select good sires of the types that will enable us to meet them. If we find that the butcher or packer likes an animal of extreme beef type, because that animal yields a high percentage of the high-priced cuts, the sires must be selected accordingly. If we find that the horse buyer takes the big, drafty, sound horse in preference to the chunk when his order calls for horses for heavy work, we must secure sires that will get coits of that type. If we ship or sell to a market which demands bacon hogs, then the boar should be the best obtainable individual of a bacon breed which is in good demand in that market.

In any case, we must strive to produce only the best animals and to be sure that they are uniformly good and that there are among them no misfits or inferior specimens which do not meet the consumers' needs.

Selecting Breeding Stock. In selecting breeding stock, the records of the near ancestors are the ones to be studied most closely. The more remote the ancestor, the less its influence on the individual.

Wheat Bran for Chicks. Give the young growing fowls all the pure wheat bran they will consume.

Fatherly Pigeon. The older a male pigeon grows the more fatherly he becomes.

ROAD BUILDING

NEED OF STANDARD METHODS

Roads Should Be Classified on Basis of Density of Traffic Into Main Lines and Feeders.

Standardized methods of road construction and a standard system of classifying highways are needed. No system of classifying highways is better than that of traffic density. It is highly desirable that careful counts should be instituted by state highway officials to determine the present main routes of travel. Just as in railroad evolution, density of traffic determines the amount of investment, so highways should be classified on the basis of density of traffic into trunk lines, main lines and feeders.

In railroad, a light traffic is handled by a single line of track with switches; main line traffic is handled by double tracks. Trunk lines handling heavy traffic are sometimes four tracked, six tracked and even eight tracked.

The solution reached in the construction of permanent country roads around Cleveland is instructive. It is similar to the solution followed in



Good Roads in New York.

railway evolution. The right of way for the highway lies between two fences 60 feet, more or less, apart. Economy is attained by building the permanent highway one-half as wide, leaving the balance of the dirt road for the present as before.

In railroad it is an axiom that the capacity of a single track of railway with sufficient switches and uniform speed of trains is practically unlimited. In Cuyahoga county, Ohio, hundreds of miles of permanent country roads of narrow widths are being built, using a special type of brick which is produced cheaply in that locality for the surface, set upon cement foundations. Future generations may wish these country auto-tracks if they so desire. But they will act more wisely if they invest the money in an equal number of miles of new narrow roads of permanent construction to act as feeders.

A 12-foot permanent road is possible, summer and winter, for the harvest loads. The dirt road lies to one side of the new trackway just as before. The country needs thousands of miles of narrow roads of permanent construction, intersecting as feeders with the wider main lines and trunk lines. Such feeders need not be wider than 12 feet. The advantages are plain. Not only are such roads passable summer, fall, winter and spring for the harvest loads, but they are also permanent.

And, above all, they are a state and municipal undertaking, not a subject for federal endorsement.—Wall Street Journal.

WIDE WAGON TIRES FAVORED

Oklahoma Adopted Measure After Considerable Study of Road Question—Most Economical.

Oklahoma, when it drafted its new road legislation, provided a penalty for using wagons of two tons or more capacity that do not have at least three-inch tires. The measure was adopted after a considerable study of the road question. Dealers who sell vehicles which do not come up to the state requirement make themselves liable for a fine of not less than \$5 nor more than \$25 for each wagon sold.

Tests by the federal roads department indicate that the three-inch tire is the most economical for farmers. Instead of being destructive to roads, it helps to make them better. Narrow-tired wagons, which are universally common, are very hard on roads.

Two Enemies of Roads.

The two greatest enemies of roads are water and politics. Of these, politics is the worst, for water will run downhill, while no one knows which way politics will run.—M. O. Eldridge.

Time for Garden Work. Save a half hour at the close of the day for work in the garden. It cannot be better employed.

Best Selling Apple. The King apple is said to be the best seller and brings a good price.

To Identify Potatoes. Stick up a shingle in the box of seed of early potatoes with the name of the variety on it. That will not forget; you may.

Plowing for Wheat. Where wheat follows corn, set the plow point deeper. Bring up some earth that has not been worn threadbare.

Tags for Sheep. Tag the sheep before they get on green feed.

MAKING the FARM PAY

By C. I. BRAY



Man Feels Independent When He Has a Good Herd of Cattle.

BUILDING UP A DAIRY HERD

Generally speaking, there is no best breed of dairy cow, although some are better for certain purposes than others. There are first-class cows in every breed, and also many unprofitable ones. Success depends more upon the selection of profitable individuals than upon the breed. The Jersey, Holstein, Guernsey and Ayrshire breeds are considered the standard special-purpose breeds, and the Red Polled, Shorthorn and the Brown Swiss the most common dual-purpose breeds, being used to some extent for beef production. The Jerseys and Guernseys are considered most economical for production of butterfat, and the Holsteins and Ayrshires are considered more profitable for milk production. The Holsteins should be kept on good pasture and on heavy rations. Profitable animals must be selected on basis of performance (shown by milk and butter records) and developed by care and good feeding. The beginner should consider his market carefully, select the breed he likes best from those most suited to local conditions and then stick with that breed, building up his herd by selection.

The dairyman, to be successful, must keep only such cows that pay a good annual profit. Many cows do not pay for their feed, while others may pay from \$5 to \$50 per year over expenses. The unprofitable cow is worth only what she will bring on the butcher's block (about \$30). The cow that produces \$50 profit over all expenses is worth ten cows that produce no profit, both as a breeder and producer, and should at least be valued at \$100 to \$150.

Breeding Better Than Buying. Some dairymen buy fresh cows, breeding to a common sire and selling the young stock and old cows to the butcher. Others breed their own stock, use good sires, keep milk records and develop heifers from their best stock. The first method has only one advantage, that of allowing the dairyman to use all his pastures and buildings for cows that are milking. Recognizing the value of a good cow, the dairyman should always be prepared to buy one that is better than what he has, but that is better than what he has, but that is much safer to depend on breeding up his own herd. The man who depends on buying gets cull stock, usually, unless he pays much more than it would cost to breed it himself. He also runs a big risk of buying diseased cattle with tuberculosis or contagious abortion. The man who breeds up his own stock can develop his heifers to good advantage so that they will be quiet and gentle and also healthy. He will usually be able to build up a good herd more surely and quickly.

Sire Is Half the Herd.

The sire is half the herd, but if he is a good one he is pretty near all of it. Grade cows may range in value from \$25 to \$250, and the sire that can produce the latter kind is worth many times more than the one that produces the \$25 kind. If a heifer can be produced that, when mature, will give 50 to 100 pounds more butter or 1,000 pounds more milk per year than her dam, the annual profit from such a heifer will accordingly be from \$10 to \$25 more than from the foundation cow. If ten such heifers were raised every year, the increased profit will be \$100 to \$250 more per year; if 20 heifers are raised, \$200 to \$500 will be gained each year by using a good bull. Consequently it is hard to understand how a progressive dairyman can afford to let a difference of \$100 or so in the original cost of a herd bull stand between him and an additional annual income of \$500. Yet dairymen will buy \$25 scrub bulls that are worse than useless as improvers of their herds, while purebred males costing \$50 to \$150 more would pay for themselves many times over in the increased value of the young stock produced. The sire that cannot increase the value of the herd is dead at any price. While the owner of a grade herd may be justified in buying as high-priced a sire as the breeder of pure breeds, a good animal will always be cheapest in the end.

Selection of Dairy Sire.

Only a purebred sire should be used, from ancestors of known merit and of good breed type, masculinity and constitution. Select, if possible, the son of a first-class dairy cow as the characteristics of the dam are most likely to be reproduced in the heifers of the next generation. The best indication of a sire's worth is his record as a producer of purebred daughters. Grasshoppers damage field and garden crops, and fruit and shade trees. Poison bran mash sowed early in the morning kills them, and their eggs may be destroyed by cultivating pastures, meadows and waste lands in the late fall.

Feeding Vessels for Calves. The young calves should be fed from buckets as clean as those used in handling the milk for human consumption.

Not Serious Defect. Make early preparations for overcoming the great drawbacks to mid-summer dairying, viz: Flies, excessive heat, and dry, short pasturage. Coober or materially mitigate these influences, and you are a successful dairyman!

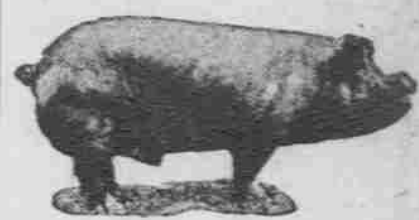
Avoid Hot Axes. Axes that get hot and dry not only wear the wagon out, but they take hay from the mow and grain from the bin. Ask the horses if this is not so.

LIVE STOCK

HOG IS PROFITABLE ANIMAL

Disadvantages of Low Market Prices May Be Overcome by Timely Breeding and Care.

The hog should be a profitable animal. He requires less labor, less equipment, less capital, makes greater gains on 100 pounds of concentrates, reproduces himself faster and in greater numbers, and returns the money faster than any other farm animal. The fact, remains, however, that prices paid for hogs during recent months have been low and discouraging. In spite of these prices the animal that possesses the above advantages can still lift mortgages for his owner if the latter



Berkshire Boar.

will study and apply some of the fundamental principles, underlying the business.

On the average farm there should be radical improvement in breeding, and the care of details during farrowing, weaning, etc. There are many complaints throughout the country either of small litters or else a great mortality in pigs. By keeping the production records of sows and selecting from those that produce and raise large average litters a breeder can raise to its most efficient point the size of his litters. This probably runs between seven and eight to the litter. The hog raiser can prevent losses, other than those caused by disease, by providing proper shelter for the sow at farrowing time. The raiser should always cultivate the confidence of his animals by quiet and humane handling; this care and attention in times of necessity will pay big returns.

SHEEP KILLED BY MAGGOTS

Parasites Develop in Clotted Filth in Wool and Work Well Over the Hind Quarters.

Much injury from maggots on sheep is reported this season. In ordinary years these maggots bother only the lambs, especially following docking and castration, when sores are exposed. The maggots develop in the clotted filth in the wool and work well over the hind quarters if not checked. If undisturbed they become so bad that serious injury and death frequently result. Under favorable conditions the maggots develop in 24 hours.

Each sheep should be carefully examined, and enough lysol or some other dip of practically full strength at the first application should be poured on the maggots. Apply as many times as is necessary to be effective. Then examine frequently, and when the maggots are all killed apply a healing salve so that the skin will keep soft and the wool will grow again.

MARKING SYSTEM FOR LAMBS

Simple Plan Outlined in Illustration Given Herewith—Notches in Ears Indicate Numbers.

This marking system is simple. If you want to mark a lamb as No. 5, make notch in ear where "3" is indicated. The numbers can be combined.



Simple Marking System.

lined, as for instance in marking No. 9 where "5" and "4" are marked on the left ear, as shown in the diagram. Supposing the ear is No. 22, then the right ear is notched at "20" and the left ear at "2."

PROPER CARE OF BROOD SOW

Start Feeding Little Grain About Month Before Breeding Time—Give Oats and Alfalfa.

About a month before breeding time brood sows that have been living on pasture since their pigs were weaned may be started on a little grain.

Oats and finely cut alfalfa fed twice a day in amounts which the sow will readily clean up will put them in good condition for breeding.

Larger and more vigorous litters will be obtained if the sow is in a vigorous condition when bred. She should be gaining in flesh at the time, not fat, but just starting to get fat.

Familiarity Breeds Contempt. Nowhere is it more certain that familiarity breeds contempt than in the handling of animals. Kindness and firmness are the requisites most needed in this direction.

Pasture With Shelter. The pasture with a good shelter is a better place than the average pig-house.

Ground Feed Helps Lambs. A little ground feed helps the early lambs to make gains.